Dredging residuals happen - anticipation and management of residuals are key to successful sediment remediation projects.

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A variety of recently completed remedial dredging projects show that residuals have been spread both within dredged areas and offsite. Dredging equipment, best management practices and site conditions can all effect residual levels. We look at two recent dredging projects in Puget Sound that measured and responded to residuals and discuss how lessons learned can be incorporated into other project designs. The Hylebos Waterway Mouth remedial action removed sediments with chemical concentrations up to 50 times the cleanup level. Confirmatory sampling indicated that after first-pass dredging, roughly one-fourth of the dredge area had post-dredging residuals with chemical concentrations greater than cleanup screening goals. A combination of focused re-dredging and enhanced natural recovery was implemented to achieve final cleanup goals. The Lower Duwamish Waterway Diagonal/Duwamish remedial action removed sediments with chemical concentrations also up to approximately 50 times the cleanup level. Confirmatory sampling performed after the dredging indicated increases in PCB surface sediment concentrations at distances of 50 feet from the dredge site, decreasing at 150 feet. Thin layer capping was supplemeted by natural recovery to achieve final cleanup goals. Results suggest that residuals at any dredge site will need proactive planning to meet cleanup goals and approaches to acheive those goals are presented.